APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,494	03/25/2004	Yuji Kaneko	041535-0308986	5737

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EXAMINER
NORTON, JENNIFER L

ART UNIT	PAPER NUMBER
2121	

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/808,494	KANEKO, YUJI
	Examiner	Art Unit	
	Jennifer L. Norton	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *25 March 2004*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-18* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *25 March 2004* is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-18 are pending.

Oath/Declaration

2.   The oath is objected to because it improperly indicates Foreign Priority to

Japanese Application 2003-088200 filed on March 27, 2003 as Japanese Application

2003-88200.

Drawings

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they include the following reference character(s) not mentioned in the

description: Fig. 4, element 16(m), 17(m), 18(m), 20(m), 21(m) and 22(m). Corrected

drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification

to add the reference character(s) in the description in compliance with 37 CFR 1.121(b)

are required in reply to the Office action to avoid abandonment of the application. Any

amended replacement drawing sheet should include all of the figures appearing on the

immediate prior version of the sheet, even if only one figure is being amended. Each

drawing sheet submitted after the filing date of an application must be labeled in the

top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the

drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

4.   Claims 1-5, 8-15 and 17-18 are rejected under 35 U.S.C. 102(e) as being

anticipated by U.S. Patent No. 6,801,813 (hereinafter Kay).

5.   As per claim 1, Kay discloses an control apparatus for an industrial machine

comprising:

a submodule (Fig. 1, element 10) including a first memory (col. 4, lines 21-22

and Fig. 1, element 20) of electrically rewritable nonvolatile type to store an industrial

machine control program (col. 5, lines 7-10, col. 8, lines 16-20, and col. 9, lines 3-5),

the submodule (Fig. 1, element 10) executing the industrial machine control

program (Fig. 1, element 44) stored in the first memory (Fig. 1, element 30) to control

an industrial machine (col. 2, lines 43-48 and col. 6, lines 8-11);

a read out drive (Fig. 1, element 56) reading out a data for rewriting the

industrial

machine control program from a memory module (col. 6, lines 13-23); and

a main module (Fig. 9, element 116) including a second memory having a

rewrite

control program (Fig. 2, element 48) stored therein to rewrite the industrial machine

control program (col. 2, lines 5-11, col. 7, lines 56-60, col. 8, lines 59-68 and col. 9, line

1), and

a third memory having a general control program (Fig. 6, element 108) stored

therein to control the submodule (col. 7, lines 56-60),

in an ordinary mode the main module executing the general control program

stored in the third memory to cause the submodule to execute the industrial machine

control program and control the industrial machine (col. 7, lines 60-65 and col. 8, lines

16-20),

in an program rewrite mode the main module executing the rewrite control

program stored in the second memory to rewrite the industrial machine control program

stored in the first memory, using the data read out by the read out drive (col. 8, lines

59-68 and col. 9, line 1).

6.   As per claim 2, Kay discloses the read out drive reads out a data for rewriting the

general control program from the memory module (col. 6, lines 13-23 and col. 7, lines

56-60), and

in the program rewrite mode, the main module executes the rewrite control

program to rewrite the general control program stored in the third memory, using the

data read out by the read out drive (col. 8, lines 59-68 and col. 9, line 1-5).

7.   As per claim 3, Kay discloses the read out drive reads out a data for rewriting the

rewrite control program from the memory module, and

in the program rewrite mode, the main module loads the rewrite control program

stored in the second memory into a RAM in the main module (col. 6, lines 13-23 and

col. 7, lines 56-60), and

executes the rewrite control program in the RAM to rewrite the rewrite control

program stored in the second memory, using the data read out data by the read out

drive (col. 8, lines 59-68 and col. 9, lines 1).

8.   As per claim 4, Kay discloses the submodule (Fig. 1, element 10) includes an

individual rewrite program stored in the first memory (Fig. 1, element 20) to rewrite the

industrial machine control program (col. 5, lines 11-16),

in the program rewrite mode, the main module (Fig. 9, element 116) executes

the rewrite control program to send a rewrite instruction to the submodule (col. 8, lines

59-68 and col. 9, lines 1-5), and

the submodule executes the individual rewrite program stored in the first

memory to rewrite the industrial machine control program (col. 5, lines 7-10, col. 8,

lines 16-20, and col. 9, lines 3-5), using the data read out by the read out drive (col. 8,

lines 59-68 and col. 9, lines 1-3).

9.   As per claim 5, Kay discloses the read out drive reads out a data for rewriting the

individual rewrite program from the memory module (col. 6, lines 27-35), and

        in the program rewrite mode, the main module executes the rewrite control

program to rewrite the individual rewrite program (col. 8, lines 59-68 and col. 1-5),

using the data read out by the read out drive (col. 6, lines 13-23 and col. 7, lines 56-

60).

10.   As per claim 8, Kay discloses the first memory (Fig .1, element 20) has a

program area to store the industrial machine control program (col. 7, lines 60-65 and

Fig. 6, element 110) and a data area to store display data to be displayed on a display

section of the industrial machine (col. 7, lines 56-65 and Fig. 6, element 118 and 120),

        the read out drive reads (Fig. 1, element 56) one or both of the data for

rewriting the industrial machine control program (a first data) and a data for rewriting

the display data (a second data) from the memory module (col. 6, lines 13-23, lines 53-

56 and 63-67), and

        in the program rewriting mode, the main module executes the rewrite control

program to rewrite one or both of the industrial machine control program in the

program area and the display data in the data area, using one or both of the first data

and the second data read out by the read out drive (col. 8, lines 59-68 and col. 9, lines 1-5).

11.   As per claim 9, Kay discloses the first data and the second data respectively include index data for identification of themselves (col. 6, line 67 and col. 7, lines 1-3), and

        the main module discriminates the first data and the second data on the basis of the index data (col. 6, line 67 and col. 7, lines 1-3), and writes one or both of the first data and the second data read out by the read out drive, into one or both of the program area and the data area (col. 6, lines 62-64).

12.   As per claim 10, Kay discloses the submodule (Fig. 1, element 10), the read out drive and the main module are connected to the same bus (col. 8, lines 8-12 and Fig. 7, element 150).

13.   As per claim 11, Kay discloses the read out drive includes a connector into which the memory module is to be inserted (col. 4, lines 7-12).

14.   As per claim 12, Kay discloses an industrial machine system comprising:
        an industrial machine to operate predetermined processings (col. 2, lines 9-11);

a submodule (Fig. 1, element 10) including a first memory (col. 4, lines 21-22

and Fig. 1, element 20) of electrically rewritable nonvolatile type to store an industrial

machine control program to control the industrial machine (col. 5, lines 7-10, col. 8,

lines 16-20, and col. 9, lines 3-5),

the submodule (Fig. 1, element 10) executing the industrial machine control

program (Fig. 1, element 44) to control the industrial machine (col. 2, lines 43-48 and

col. 6, lines 8-11);

a read out drive (Fig. 1, element 56) reading out a data for rewriting the

industrial machine control program from a memory module (col. 6, lines 13-23); and

a main module (Fig. 9, element 116) including a second memory having a

rewrite control program (Fig. 2, element 48) stored therein to rewrite the industrial

machine control program (col. 2, lines 5-11, col. 7, lines 56-60, col. 8, lines 59-68 and

col. 9, line 1), and

a third memory having a general control program (Fig. 6, element 108) stored

therein to control the submodule (col. 7, lines 56-60),

in an ordinary mode the main module executing the general control program

stored in the third memory to cause the submodule to execute the industrial machine

control program and control the industrial machine (col. 7, lines 60-65 and col. 8, lines

16-20),

in an program rewrite mode the main module executing the rewrite control

program stored in the second memory to rewrite the industrial machine control program

stored in the first memory, using the data read out by the read out drive (col. 8, lines 59-68 and col. 9, line 1).

15.   As per claim 13, Kay discloses the submodule (Fig. 1, element 10) includes an individual rewrite program stored in the first memory (Fig. 1, element 20) to rewrite the industrial machine control program (col. 5, lines 11-16),

in the program rewrite mode, the main module (Fig. 9, element 116) executes the rewrite control program to send a rewrite instruction to the submodule (col. 8, lines 59-68 and col. 9, lines 1-5), and

the submodule executes the individual rewrite program stored in the first memory to rewrite the industrial machine control program (col. 5, lines 7-10, col. 8, lines 16-20, and col. 9, lines 3-5), using the data read out by the read out drive (col. 8, lines 59-68 and col. 9, lines 1-3).

16.   As per claim 14, Kay discloses the submodule (Fig. 1, element 10), the read out drive and the main module are connected to the same bus (col. 8, lines 8-12 and Fig. 7, element 150).

17.   As per claim 15, Kay discloses the read out drive includes a connector into which the memory module is to be inserted (col. 4, lines 7-12).

18.   As per claim 17, Kay discloses updating a program for controlling an industrial

machine, comprising:

        in an ordinary mode, a main module (Fig. 9, element 116) executes a general

control program stored in a first memory in the main module to cause a submodule

(Fig. 1, element 10) connected to the same bus (col. 8, lines 8-12 and Fig. 7, element

150) as the main module to execute an industrial machine control program stored in a

second memory of electrically rewritable nonvolatile type in the submodule and control

an industrial machine (col. 2, lines 9-11, col. 7, lines 60-65 and col. 8, lines 16-20), and

        in a program rewrite mode, the main module executes a rewrite control program

stored in a third memory in the main module to make a read out drive which is

connected to the same bus (col. 8, lines 8-12 and Fig. 7, element 150) read out a data

for rewriting the industrial machine control program from a memory module (col. 8,

lines 59-68 and col. 9, lines 1-5), and

        rewrites the industrial machine control program stored in the second memory,

using the data read out by the read out drive (col. 8, lines 59-68 and col. 9, lines 1).

19.   As per claim 18, Kay discloses the program rewrite mode, the main module (Fig.

9, element 116) sends a rewrite instruction to the submodule (col. 8, lines 59-67 and

col. 9, lines 1-5), and

        the submodule executes an individual rewrite program stored in the second

memory in the submodule to rewrite the industrial machine control program (col. 5,

lines 7-10, col. 8, lines 16-20 and col. 9, lines 3-5), using the data read out by the read

out drive (col. 8, lines 59-68 and col. 9, lines 1-3).

Claim Rejections - 35 USC § 103

20.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented
> and the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

21.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kay in

view of U.S. Patent 6,728,787 (hereinafter Leigh).

22.   As per claim 6, Kay teaches to the read out drive (Fig. 1, element 56) reads out

the data for rewriting the industrial machine control program from the memory module

(col. 6, lines 13-23 and col. 7, lines 56-60), and

in the program rewriting mode, the main module executes the rewrite control

program, and rewrites the industrial machine control program in the submodule, using

the data read out by the read out drive (col. 8, lines 59-68 and col. 9, line 1).

Kay does not expressly teach the submodule has a submodule-identifier-holder

to hold an identifier for identifying itself.

Leigh teaches to submodule has a submodule-identifier-holder to hold an

identifier for identifying itself (col. 3, lines 28-33 and Fig. 1, element 233).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of applicant's invention to modify the teaching of Kay to include the read out

drive reads out the data for rewriting the industrial machine control program associated

with the identifier, from the memory module, and in the program rewriting mode, the

main module executes the rewrite control program to acquires the identifier from the

submodule, and rewrites the industrial machine control program in the submodule

having the acquired identifier, using the data associated with the acquired identifier

read out by the read out drive to reduce the difficulty of installing and set-up of a

device for the novice computer user (col. 1, lines 47-49).

23.   Claim 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kay in view of U.S. Patent No. 6,907,308 (hereinafter Bartlett).

24.   As per claim 7, Kay teaches the submodule (Fig. 1, element 10) includes a

version-information-holder to hold version information of the industrial machine control

program stored in the first memory (col. 8, lines 12-16 and Fig. 1, element 140, 142,

and 144),

the read out drive reads (Fig. 1, element 56) out the data for rewriting the

industrial machine control program associated with the version information, from the

memory module (col. 6, lines 27-35).

Kay does not expressly teach in the program rewriting mode, the main module

executes the rewrite control program to compares the version information held in the

submodule with the version information included in the data read out by the read out

drive, and when a result of the comparison satisfies a predetermined condition, the

main module rewrites the industrial machine control program.

Bartlett teaches to comparing the version information held in the submodule with

the version information included in the data read out by the read out drive, and when a

result of the comparison satisfies a predetermined condition, the main module rewrites

the industrial machine control program (col. 8, lines 28-36).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of applicant's invention to modify the teaching of Kay to include to comparing

the version information held in the submodule with the version information included in

the data read out by the read out drive, and when a result of the comparison satisfies a

predetermined condition, the main module rewrites the industrial machine control

program to provide a quick and accurate method to verify and compare the contents of

two or more recipes (col. 8, lines 35-38).

25.   As per claim 16, Kay does not expressly teach the industrial machine is a die

casting machine, an injection molding machine or a machine tool.

Bartlett teaches to the industrial machine is a machine tool (abstract and col. 4,

lines 6-11).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of applicant's invention to modify the teaching of Kay to include to the

industrial machine is a machine tool to provide a quick and accurate method to verify

and compare the contents of two or more recipes (col. 8, lines 35-38).

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

The following references are cited to further show the state of the art with

respect to rewriting a program in memory.

U.S. Patent No. 5,844,796 discloses a machine control device capable of

accurately rewriting a control program of a memory for controlling a mechanical

device.

U.S. Patent Publication No. 2003/0167371 discloses a memory rewriting

apparatus capable of easily rewriting a memory.

Any inquiry concerning this communication or earlier communications

from the examiner should be directed to Jennifer L. Norton whose telephone number is

571-272-3694. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Anthony Knight can be reached on 571-272-3687. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

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more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

Anthony Knight

Supervisory Patent Examiner
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